

**Notice of Allowability**

Application No.

09/820,790

Examiner

Scott D. Priebe

Applicant(s)

SHAO ET AL.

Art Unit

1632

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed Sep. 26, 2003.
2. ☒ The allowed claim(s) is/are 4, 8, 9 and 24-37.
3. ☒ The drawings filed on 24 March 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
(a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.  
(b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.  
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- 1 ☐ Notice of References Cited (PTO-892)  
3 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 2/12/03  
5 ☒ Information Disclosure Statements (PTO-1449), Paper No. 3/15/03  
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material  
2 ☐ Notice of Informal Patent Application (PTO-152)  
4 ☐ Interview Summary (PTO-413), Paper No. \_\_\_\_\_  
6 ☒ Examiner's Amendment/Comment  
8 ☒ Examiner's Statement of Reasons for Allowance  
9 ☐ Other

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Justin D. Karjala on Oct. 16, 2003.

The application has been amended as follows:

The title has been replaced with

-- NUCLEIC ACID MOLECULES ENCODING A SUBUNIT OF A HUMAN  
CALCIUM/CALMODULIN-DEPENDENT PROTEIN KINASE --

In claim 4, last line, "a nucleotide sequence of (a)-(c)" was replaced with

-- the nucleotide sequence of (a), (b), or (c) --.

In claim 31, line 3, "transcript/cDNA" was replaced with

-- transcript or cDNA --.

In claim 31, last two lines, "a nucleotide sequence of (a)-(c)" was replaced with

-- the nucleotide sequence of (a), (b), or (c) --.

The following is an examiner's statement of reasons for allowance:

SEQ ID NO: 1 appears to be a splice variant expressed by the human gene (CAM2B gene) encoding the beta subunit of the calcium/calmodulin-dependent protein kinase II. Zhou et al., GenBank AF078803 is the closest prior art, and discloses a different splice variant of the human CAM2B gene, and differs from SEQ ID NO: 1 by lacking the first 258 nucleotides of SEQ ID NO: 1 (non-coding sequence) and a 78 nucleotide sub-sequence present within the coding region of SEQ ID NO: 1 for SEQ ID NO: 2. Wang et al discloses several different splice variants of CAM2B protein, none of which is identical to SEQ ID NO: 2. Thus, SEQ ID NO: 2 appears to be a previously unknown variant of human CAM2B.

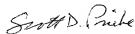
SEQ ID NO: 3 is a partial genomic clone of a human CAM2B gene, which does not contain the complete coding region for SEQ ID NO: 2. Waterston et al., the closest prior art to SEQ ID NO: 3, discloses the sequence for the insert of PAC clone RP5-852P6, which contains a part of a human CAM2B gene. The partial CAM2B sequence of the clone contains a sequence corresponding to, but not identical to, SEQ ID NO: 3, and also does not contain the complete coding region for SEQ ID NO: 2.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott D. Priebe whose telephone number is (703) 308-7310. The examiner can normally be reached on M-F, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds can be reached on 703 305-4051. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Scott D. Priebe  
Primary Examiner  
Art Unit 1632